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Agriculture; Horticulture, Live Stock and Rural Economy,

THE OLDEST AGRICULTURAL JOURNAL IN MARYLAND, AND FOR TEN YEARS THE ONLY ONE.

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BALTIMORE, APRIL, 1886.

No. 4.

#### THE LABOR MOVEMENT.

We are naturally interested in all that has the remotest influence on agricultural interests, and we have accordingly been a close observer of the labor movement as connected with this department. Of course, under this head come all those industrial establishments which provide for the farmer his necessary farm implements and machinery, and which employ thousands of men to keep up the supply for our country. We have now more especially in mind the case of the McCormick manufactory at Chicago, and the recent strike of about 1400 workmen, occasioned because Mr. McCormick insisted upon employing some, in one department of his works, who were not members of the Knights of Labor. It seems that no question as to wages, or hours of labor, or any kindred subject, was between employer and employed; but simply the fact that men, outside of this organization, were employed by him. Hence the strike, and all the trouble and expense to the men, to the McCormick

works, and to the city of Chicago, with its hundreds of extra policemen.

We are, and always have been, friends and sympathizers with the workingmen. It has been our lot to be associated very closely with numbers of them, so that we can realize in good part the trials to which they are subject. We see the partial remedy which has been afforded them by organization; and we do not wonder that at times they expect more from their unions than can be accomplished by them, and in their zeal to bring about certain results, they over-step the limit of justice and make demands that are not within their rightful province.

Suppose a case, keeping in view the agricultural implement maker: The Knights of Labor direct that one manufacturer shall pay certain wages for so many hours work, which will fix the cost of the machine he is making at \$150. But here is a rival company who are turning out machines at \$100, not hiring union men. Is it not evident that the ruin of the first named is only a matter of time? Were it possible

to regulate the price to be paid by the farmer as well as the cost to the manufacturer, perhaps this danger would be avoided; but the Knights of Labor cannot do this. Here is a difficulty; one of very many difficulties which are inseparable from this labor movement.

While there may be a need of protection for the workingmen as to oppression which may possibly arise on the part of capital, and the necessity of united action; we have never been able to see the justice, or propriety, of the workingmen dictating to the employer what persons he shall employ and the wages he shall pay. We can see very plainly that the workingman has the right to refuse to work for certain wages, and to stop work; but further than this justice is at fault. Where large interests are involved, and skilled workmen are a necessity, it becomes an important feature that some means should be devised to remedy any misunderstanding which may arise as to wages or hours of work.

In England labor organizations are taken under the protection of the law, and all difficulties arising between the employer and employed are made the subject of arbitration. While neither party are necessarily bound by this arbitration, still it has a very salutary effect; and in nine cases out of ten it has been able to solve the difficulty and prevent strikes.

Labor organizations, originating for self protection, and founded upon just principles, can be made a blessing to the workingmen; while they will not infringe at all upon the rights of the employer—leaving him free to choose whom he will employ and how he will employ them. But to accomplish this, they must be subject to the provisions of law; and the best law at present devised seems to be that of arbitration, by a lawfully appointed board of arbitrators.

This labor question is at present overshadowing our whole country, and every

branch of industry is involved in it. The farmer is affected by it fully as much as any other class; for the very existence of his improved methods of agriculture depends upon its proper regulation.

“Strikes” are an injury to all concerned; fully as great an injury to the workingmen as to any other party; but they have wide and injurious influences upon every branch of trade. Landlords suffer from want of rents, merchants from lack of custom, or failure to pay where credit is given, and we cannot trace the extent of baleful influence. Any just method of avoiding these, will be the greatest blessing possible to all interested parties. It is therefore in the interest of both employers and employed; that we advocate that these labor organizations be taken under the protection of law, and their methods regulated by the wisest legislation of the several states.

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#### OUR FOREIGN LETTER.

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PARIS, MARCH 1st.

“No shoe, no horse,” said veterinary Lafosse, in the 18th century Garsault drew attention to the necessity of studying the first shoeing, as on its correct execution, depended in a large measure the formation of the animal’s foot, and the development, or at least, good working of the joints, and the securing of strong tendons. At what age ought a colt to be shod? As late as possible say some—say, 4 or 5 years; others would execute it at two or three years. But when is the foot fully developed, so as to resist a Chinese swathing in iron? While the wearing of the hoof does not exceed its development, or expose any vital part, there is no great utility in calling in the farrier. But if the foal be taken early into training, and exercised over hard surfaces, a slipper may be necessary. Perhaps between three and four years of age, will appear to many as the proper period to commence shoeing, and when the development, of the foot cannot be affected.

Few foals are born with defective hoofs, and if in riper years such appear, the cause must be attributed to the farrier’s vicious handiwork. It may arise from his ignor-



ance of the structure of the foot, and hence the excellent decision of the French Government, to exact, that apprentice farriers shall henceforth attend technical lectures on the pathology of the horse's foot.

As a safe rule, the shoes of colts should be light, and relatively narrow, to allow of the elastic play of the foot, while offering no impediment to its development. The nails, limited to six, ought to have small heads, and be sunk in the groove of the shoe itself. The fore feet are first shod, and two months later, the hind feet. It is usual to varnish the hoof to protect it from dryness. Change the shoes once a month.

Where colts are left unshod, their feet ought to be periodically examined, and pared; this may guard against blemishes. Besides, it accustoms the colts to have their feet handled; the latter ought to be from time to time lifted up in the stable or field, and given a few slaps on the sole, as a rehearsal of the farrier's services. The first shoeing ought to be affected by an old farrier, or one not likely to coerce or torture the colt, and so have an unhappy influence on its temperament for ever.

#### CULTURE OF SUGAR BEET.

The principal condition for the successful culture of sugar beet, is to have a soil of sufficient tilth, in order that the tap root can freely descend, and find, during dry weather, the requisite humidity. This will also facilitate the development of the rootlets, or feeders. In order to stir the soil to the depth of 12 or 14 inches, sub-soil ploughing is resorted to, but which will only loosen, not turn over, or bring up a second furrow. When the sub-soil is to be brought up it should correspond in character with the surface soil; if not, the irregular composition of the earth will induce forking in the roots. It is by attending to these points, that Germany owes its pre-eminence in the culture of sugar beet. In France, the small cultivators commence to raise the beet in a narrow bed, or double drill, and dig between the furrows. The intervals thus deepened, are marked, and serve as the base of the drills for the next rotated beet crop, while the old beds, becoming intervals, are in turn trenched.

#### WOOL VS. MUTTON.

The complex question of wool, *versus* mutton, still attracts irritating investigation. Much time would be economised,

if those interested—and their name is legion—would bear in mind, that wool growing and flesh production, are two distinct operations. To maintain, that only one race of sheep ought to be favored, that wool ought to supersede mutton, or a mixed breed encouraged to unite the excellencies of both; all that is too dogmatic.

The partisans of these general ideas, overlook the deciding influences of soil and climate. The Merino, for example, in France at least, thrives best on calcareous soils. Even on the same farm, parts of it will grow wool better than others. The South of Lincolnshire sheep is famous for its wool, but the more northern the latitude, the more wool becomes hair or moss. In fact, the favorable region or latitude, for the production of first class lustrous wool, is very limited; hence a glut of prime fleeces, is not to be anticipated.

Again; on many clay soils, it is next to impossible to maintain a breeding flock of sheep, and it is advantageous to keep up the latter. Some farmers are commencing the practice of keeping two breeds of sheep—say Southdowns and Leicesters; the first for mutton, and the second for wool. Both to be of good pedigree, for as a general remark, the high breeds of cattle are found in the long run, to suffer least from diseases. And sheep bring in money all the year round. A breed of sheep cannot be improvised for a locality. Thus the races of North Wales and Shetland, whose only covering is the sky, will not likely take at once, to a richer food—turnips, hay and cake—in preference to the coarse grass and heather, to which they have been accustomed, so that a better fleece and bigger frame, are not matters to be attained by a wizard's wand.

There is a close connection between quality and quantity of fleece. The abundance of wool is not compatible with the production of a heavy fleece; in other words, the more wool, the coarser the staple and the more flesh. Does the transformation pay? Experience alone can decide for the farmer. How augmentation in carcass, induces length of staple, be the latter fine or otherwise, and for industrial wants, long or combing wools, are in greater request, than the shorter or carding varieties. The result of the controversy would appear to be, where soil, climate and market, favor the growth of fine wool, ad-

here to fine wool races; and where there is a demand for mutton, produce this, and accept the relatively fineness of the fleece.

The form of the sheep has, strictly speaking, nothing to do with the aptitudes of the animal. The fineness and suppleness of the skin, the "butcher's grip" at the shoulder, are as peculiar to the wool-bearing, as the meat-yielding animal.

#### TOP-DRESSING.

There is a growing tendency to fall back on good pasture land as a source of profitable farming. In other words, to "cultivate" pastures, in the sense of caring them, by judicious manuring. There is no branch of farming which requires so much investigation, as the treatment of meadow land. Top-dressings may prove very deceptive. Bone dust may result in a dead loss, in one locality, while in another, on application of the same will resuscitate worn out pastures. On cold clay soils, boning would be an error; but a mixture of nitrate of soda, or a potash salt, with gunao and super-phosphate, would be efficacious. It is well to ascertain beforehand if the land be deficient in lime; if otherwise, marling and limings would be simply thrown away. If the soil wants lime, fertilizers or farm-yard manure, will produce but very little effect. No common formula for a top-dressing can be laid down. As a safe rule, nitrogenous fertilizers are best, but nothing can surpass applications of well prepared farm-yard manure to meadows.

Few persons but prefer good natural to artificial meadow hay, and this is due to the greater variety of grasses which enter into the composition of the former, assuring thereby a more nutritive and palatable forage. In an artificial meadow, not more than five or six, more frequently only one variety of grass, figures in natural meadow, there may be as many as thirty or fifty. The natural meadow cannot be too profusely stocked with different species of graminæ—and the idea might be borne in mind for less permanent pastures, remembering climate, soil, situation and end in view.

Those who have used the Boss Zinc and Leather Collar Pads and Ankle Boots say they are the best and cheapest, because most durable. They will last a life time. Sold by Harness makers on 60 days' trial. DEXTER CURTIS, adison, Wis.

Mantua Farm, Va., March 5th, 1886.

MR. EDITOR.

Allow an old subscriber to your Journal to congratulate you upon its very artistic and attractive appearance in its new suit, which fits it admirably both outside and in. It has no doubt grown too popular to have you feel satisfied for it to continue wearing the old dress, and to show your appreciation of the courtesy extended to it by the advanced agriculturist, you have made it so attractive that but few who know of its value would be willing to dispense with it, even at several times its cost. I hope every farmer in the Middle States will subscribe for it, and as many outside as may wish a first class agricultural journal. Hoping you may live many years to enjoy the success so hardly labored for in the true interest of agriculture is the sincere wish of

Heathsville, Va.

Yours truly,  
T. R. CRANE.

P. S.—Enclosed I send you an article on clover, as a renovating crop for poor land.

To the Editor of Maryland Farmer.

#### CLOVER AS A RENOVATOR.

As this is the season for sowing clover seed, and in a short time for planting spring crops generally, I have concluded to give you my views respecting the manner of preparing the land, and of sowing and planting each crop—and for improving the land at the same time. [If any of your readers have a better plan to suggest I would be more than gratified if they will present their views through your Journal, believing you will afford them that privilege.] I have found that harrowing the wheat as soon as the frost leaves the ground in the spring, and the land is in condition to work, was the proper preparation for receiving clover seed, and after sowing them by rolling immediately, I have invariably procured a good set of clover, and found the harrowing and rolling to materially improve the wheat. I will say just here, that, (unlike two agricultural writers) I regard clover properly utilized as a fertilizing crop, is one of the very best renovators of worn out soil of any plant or agent I know of, and I believe I will be sustained in this view by every practical agriculturist of the country. What impoverished



land wants is humus or vegetable mould, and that can not be obtained in a more prompt and economical manner than by the judicious use of clover. My own land has demonstrated this beyond a question. A negro man was cultivating a field in corn for some years previous to my buying this farm, and had reduced its fertility to so low a degree that his last crop was two barrels per acre, (and that cultivated under my instructions.) He seeded this corn land in wheat and applied 200 lbs. of acid phosphate per acre, and made five bushels of wheat per acre. The following spring I sowed one gallon of clover seed per acre, and succeeded in getting a good set of clover. This clover was not cut, nor was it grazed excessively, but was allowed to fall upon the ground and reseed itself for three successive years. After which time (in the spring of 1885) I had the field prepared as thoroughly as possible and planted in corn, using 300 pounds acid phosphate per acre, distributed broadcast just before the corn come up. The land was kept well worked and free from grass by shallow cultivation until the corn commenced to tassel, when cultivation ceased. The crop exceeded ten barrels per acre, and the land is in better condition of fertility than it was ever known to have been before. This increase in four years from two to ten barrels, and the land left so much improved, is owing to clover more than any one agent. (The entire cost for fertilizer, was \$2.25 per acre.) I expect to have this land well plowed and put in as fine tilth as possible this spring and sowed in oats with 300 lbs. dissolved South Carolina Rock and Kainit, distributed broadcast immediately after seeding and rolled. I shall fallow the oat stubble in the summer as soon as possible after getting the oats off and have the land put in the best possible condition (by harrowing and rolling) for seeding wheat, and sow about the first of October, or earlier if I can, and at the same time distribute on the surface 400 pounds dissolved South Carolina rock and Kainit, per acre, broadcast and roll. I do this with one machine. I find the application of all fertilizers and manures are best made on the surface, and particularly acid phosphate, which when applied through the drill hoe, together with the grain, is liable to destroy many of the embryo plants before they reach the surface, and consequently the cause of very

many less plants than the seed sown would otherwise produce. By distributing the fertilizer broadcast, the grass and clover always does much better. Oats is not generally a good crop to sow clover seed with, although I have procured a good set of clover by sowing less quantity of oats per acre, than I would have done for a full crop. Oats after corn is a good cleansing crop, and after being taken off of the land, the farmer has ample time to prepare the stubble for the succeeding crop of wheat, and is much more likely to get a good set of grass by sowing timothy with the wheat and clover in the spring, if done properly, than by any other plan that I know of, unless by sowing the grass seed alone on specially prepared land. T. R. C.

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To the Editor of the Maryland Farmer.

#### WORTON MANOR.

Kent Co, Md., March 1st.

The great change in the weather from yesterday was sudden and sharp. Yesterday was a May-day in February; today there is a cold blast from the westward, while the sullen Chesapeake with its dull roar is in unison with the harsh wind forcing a passage through the cheerless woods.

Yesterday was bright, warm and inspiring; there was a new life in it; a foretaste of the spring. Today is dull, cold and depressing; a remnant of the dying winter. The horses, the cattle, the sheep and the poultry feel the difference—nay more, they make the comparison—and do we go too far in saying, that they enjoy their comfortable quarters under the circumstances with a keener relish, a quicker appreciation, than we reasonable creatures do the comforts and fixtures of a nineteenth century home. Undoubtedly the domestic animals (of which we have in the last few days formed some novel impressions) are affected by the beauty of the landscape; the brightness or dullness of the sky; the nature of the weather, as well as we. It may be that we draw more meaning from their different phases—yet this is doubtful in a weather point of view, for the wild ducks of the bay are more weather-wise than men.

We shall give it up to set any precise boundary where the man's appreciation of

nature in the elements surpasses that of the farm stock—if indeed it does at all. We can positively assert from the last two days observation that the stock have a full-hearted, thankful appreciation of comfortable quarters and express in an unmistakable manner a love for them as positive as we have for comfortable homes. Of course we are not alluding to old homesteads such as the one on the Worton Manor Farm—sanctified by the sad and joyous experiences of long years and many lives, by glad some marriages, welcome births, and sad deaths which throw a halo over them.

Yesterday an old toothless horse, who has been this many a year, with several other veteran companions, placed on the retired list, but not on half rations only, came up to us to be petted. He was in good condition of flesh, his coat was silky and clean, he looked cheerful in the eye and it would have been hard for anyone to convince us, that he had no gratitude in his heart, when in a quiet way, on our shoulder he laid his chin.

We don't mean he had special gratitude to us, we had done nothing particular for him, but that he had a general undefined feeling of gratitude within his aged bosom for all those around him who treated him with proper kindness and respect.

That this old animal appreciated his clean, warm manger and rack of hay in last nights icy gale, we look upon now as a matter of course.

Yesterday afternoon, at feeding time, the bull "Adventure," who in a dignified way recognizes his name—an animal sufficiently marked in form, action and colors, as to have agreeably engaged the pencil of Rosa Bonheur, had she been by—led the herd from the yard into their stalls. Some dozen or more of the youngsters following were his boys and girls, palpably so in their carriage as well as in the positive duplication of white faces, white feet and white on the tip of their tail.

Following this king of the cattle yard, came the imported Southdown ram, J. J. Colman, called "Jimmy" for short—the chief of the fold and the father of some fifty lambs—yet to be born—their mothers, all of whom are with young, following their lord into the pens.

It seemed to us, while this filing in was going on that the mares and colts in another yard were as much interested in look-

ing over the rails, as we, while they were waiting impatiently for their turn to come.

The extensive barns on Worton Manor are conveniently arranged for feeding everything down from the second floor. This makes the work of dealing out provender comparatively light, while a turbine wind mill pumps up an abundance of fine water.

Now, when the dwellers who inhabit these extensive, convenient and comfortable barns are seen waiting expectantly for the feeding hour in the late afternoon, and when the doors are opened filing in and taking their particular places—somewhat illustrative of the line, "The ox knoweth his stall and the ass his masters crib"—seemingly as apprehensive in their conduct and as alive to their rights and privileges as a pack of schoolboys when the bell rings, we give them credit for a sense of order and sufficient intelligence to render them certainly alive to the peculiar style of treatment they receive. Today we caught the gentleman of Worton Manor milking a ewe, for the reason that she gave more milk than her lamb could consume; consequently we were not astonished to find that his two assistants had as much feeling for the animals as their owner. We don't mean sentimental feeling as if for a pet, but manly common-sense sympathy for the natural wants of the beasts, whether in sickness or health. "The merciful man is merciful to his beast."

Now we venture to say that as certain kinds of food have a tendency to fatten animals, so will certain kinds of treatment have the same tendency, and that the proverb, "better is a dinner of herbs with love, than a stalled ox and hatred therewith" is as true of the life of the animal as of the man. We go a point further: there is such a thing as improving the spirit of the animal as well as the flesh.

There is a certain spirit in many of the youths of our times to be plaguing every innocent animal, and especially forlorn cats and homeless dogs, with what they are pleased to consider, practical jokes. Such as traps, twiches of the tail, running them together in corners, egging them on one against another, etc. When such gentry are kept away from cattle, you will immediately notice the trustful, unhesitating way in which they move about; there is no suspi-



cion nor apprehensiveness in their eyes, but rather confidence and content.

The fact is that a firm but kind manner in dealing with stock has a great deal to do with keeping them in good condition and spirits as well as good food and plenty of it.

As a perfect stranger we walked around in and amongst young colts, heifers, bulls and rams as if among a lot of children, and were we to send from five hundred miles away for a colt, a heifer, or ram, from Worton Manor farm, we would expect to find in the animal all the character and spirit that its blood and condition allowed, united with a gentleness that would not hinder us from fondling it or feeding it from the hand.

When the turn of the horses came to be housed, all the favorites knew their names, and most of the others except a few who had not as yet reached the degree of intelligence necessary, while some of them were considerably advanced beyond that degree. Jumping Jack was stopped as he was passing by and made his obeisance. On being asked the ordinary questions of "did he like hay?" "Did he like the cold raw day?" etc., he gave the usual bow and shake in the negative. He laid himself down, at command, so easily that it was easy to perceive he would not be a dangerous bedfellow. He rose to one knee and waited in that position for his master to mount him; which trick, if you have a mind to call it by that name, was useful to his master some time past when suffering from a broken arm. This animal was not taught these tricks for mere display, nor at any great effort and no cruelty of the trainer, his owner; but as a trial and proof of the intelligence which springs from affection that was nourished in him. Of course kind and intelligent treatment is the secret of domestication.

As Ben Butler, Garfield, Jim Blaine, Kiss-me-quick, Hancock, Bashaw and Belle, the favorite of the ladies, and a score or more, gave us some recognition, as they passed by, though we were a stranger. It did not require any very keen insight to read in their antic playfulness on the way to supper and bed that they were looking forward to a hearty meal and a good night's rest. All of these animals are of good blood; most of the driving ones speedy enough for good roadsters, and all of them good working stock which are the desider-

ata in this neighborhood; while a three minute horse is fast enough for any practical purpose anywhere except on a race track.

We have ridden out on a Texas prairie to within gunshot of a drove of ponies (so called, though they will average thirteen and fourteen hands) when they gave us their heels and were away. Many amongst them were beautiful in their freedom. Galloping around them and driving them for several miles into a pen, we have picked out a beauty, had him roped, thrown down, blindfolded, saddled and ridden by a professional breaker, with a buckstick lashed to his pommel and long rowelled spurs on his heels. We have seen the little stallion buck and pitch and run for hours until he was broken, and his heart and spirit were broken too. His beauty and grace were gone.

A week ago we rode over the fields after a "wild colt," so called because several times, "just for a lark," he has broken stable and gone out for a holiday, "over the hills and far away." This truant fellow played with us as we rode after him; doubled on us, took us over the same ground half a dozen times; led us over the snow drifts, and through every broken fence he could spy; laughed at us in his sleeve, and when we were about to give him up in disgust, for we had no lariat, why! bless our soul, the rascal followed us; came up close alongside, within reach, and trotted along merrily home without bridle or halter. He would follow but he would not drive.

What a comparison! The difference is between a child of the household and a Comanche of the Southern plains.

The Hereford breed of cattle bred on Worton Manor are for meat; though they are good milk cows, too, and gentle, if well bred, as you would think when the milkman says, "so-o, so-o, sukey," softly, and the cow ranges herself to be milked.

The Southdowns are for mutton, though they shear well on the Eastern Shore.

A large flock of Plymouth Rock breed of chickens, is the care of the ladies. They are healthy and thrifty fowls and good layers, as profitable shipments of eggs best testify. Fine birds for the table too, as all know who have eaten them. The bronze breed of turkeys are peers in their kind. Their domestication is of comparatively recent date. Not long ago, one

dressed gobbler among a lot shippad, balanced the scales at 30 lbs., which is well up among the heavy weights, and the average of the lot was not far below that weight in firm and luscious flesh.

The proudest and handsomest gobblers that strut about at Worton Manor are sent out on missionary trips to neighboring farms, and an improvement in the turkey breed of the neighborhood is pleasantly plain.

If the book account of the farm which supports all this stock is examined, the land will be found debtor to the stock for over 900 loads of stable manure, and the land may be said to rejoice in the return to it of more than is taken away by the grain and fruit; to which the proprietors are in turn debtors for handsome balances of cash, while constant shipments from Gale's Wharf, on the farm, of Herefords and Southdowns to all parts of the country, with poultry and eggs to the city markets, leave clear profits to crown the whole. It is probably, the largest stock farm on the Eastern Shore; certainly the largest in Kent county. The quality of the stock bred on it has met with general recognition throughout the country, and special recommendation at the county fairs. It is a growing farm in every respect, and as year after year rolls around, presents the scene of profitable labor; continued development; improvement and extension in that calling of stock raising and farming combined, which from the days of Abraham until now, has been considered by the wisest of men, as the noblest of occupations—the nearest to nature and to nature's God.

G. S. S. R.

#### “Fearless” Threshing Machine.

We call the attention of farmers and threshermen to the advertisement of the celebrated “Fearless” Threshing Machine, elsewhere in this paper. Unparalleled honors have been bestowed upon this machine, at fairs and exhibitions, State, National and International. And, as equally good and reliable evidences of superiority have been given, by the highest authority, times without number, persons desiring to purchase will do well to consult the manufacturer of the “FEARLESS,” MINARD HARDER, Cobleskill, N. Y.

KNOW THYSELF by reading the “Science of Life,” the best medical work ever published, for young and middle-aged men.

To the Editor of the Maryland Farmer.

#### AGRICULTURAL EDUCATION.

My attention has been specially called to this subject of agricultural education, from a long experience of the little appreciation which is had for the advanced movements in agricultural science, by the vast majority of our citizen farmers. The idea that agriculture is a *progressive science* is slow in making an impression on the masses, and they stand today, in many respects, where they stood forty years ago. A broad field for examination has been before them, and if it had been improved, the farmer's vocation would today stand among the highest professions in the scale of knowledge, enterprise and visible improvements.

It is a fact, patent to the most careless observer, that the farmers of our country are more intelligent than those of any other land. It is not because of any inferiority when compared with agricultural people of Europe, that I have chosen to write you on the subject of agricultural education. I wish through your widely extended influence, to be enabled to reach many minds, and impress them with the great good which can be accomplished by an enlightened advocacy of every educational enterprise which has for its object the better equipment of the farmer for his annual toils.

The great idea is, that by making use of a wider knowledge of agricultural facts, the farmer's work becomes less of a drudgery, more of a science; less a work of the muscles, more a work of the brain. For example:

Take the improvement of the soil and make it in the usual way, of teaming vast quantities of manure into compost heaps, spading over these heaps several times during a single season, and then again teaming it to the fields intended for the crop. What an amount of work! The once teaming from the barnyard to the field, during the winter, was all that was needed; for a knowledge of science teaches the farmer that none of it is lost during the winter snows, or the spring rains; but all its virtues are better distributed through the soil, than by the other methods.

So, also, in the case of a knowledge of improved machinery. If by using a machine, which, by once going over the ground



will do the work which heretofore required twice or thrice traversing the ground, what an amount of labor is saved to the farmer. Many machines are of this character. Improved sowers, improved reapers, improved cultivators, improved threshers, improved plows and harrows.

These points, however, are only the most evident examples of the influence of an agricultural education. The field is so broad and so beneficent to the farmer, that we can scarcely touch upon its many sidedness now. Consider what is included in it from a scientific point of view alone, and we would have but a very limited view of it; although that might include, the nature of all soils, with all that each might need to make it most productive; the constituents of all crops and how best to feed each crop to secure the best results; the food that comes from sun and air, and water, and earth, and how to utilize each to best advantage. So, likewise, in the dairy department, what room for improved methods appear, and what a benefit from taking advantage of a ripened knowledge derived from familiarity with the process of creameries and cheese factories. At present the only knowledge of these things grows out of the influence which is exerted by farmers' meetings, farmers' clubs, the intelligence disseminated through the agricultural press, and other methods of education and enlightenment, for which our country is noted.

It is to be hoped that the time is not far distant, when, in all our district schools in farming neighborhoods, practical farming studies shall be added to the ordinary routine now followed. The young should early gain a true education in that direction where the knowledge will be most valuable, and contribute most to a successful and happy life. But this era has not arrived, and the education in the direction of practical agriculture is notably imperfect. The farmers do not reap a reward from their occupation large enough to enable them to take advantage of advanced schools and colleges to the extent necessary to bring up the masses to the desired standard of enlightenment, that will elevate their work above the drudgery of mere physical toil.

It is here that the government aid comes in to help most effectually in the education

which is needed, and which shall be the farmer's blessing in the time to come.

In many of our states are already established Agricultural Colleges, and it only requires time to make these the sources of extensive usefulness to the masses, and to become the centres of an education which shall reach every corner of every township in our country. But to accomplish this, facilities must be afforded our agricultural population to use these colleges. Students, consisting of farmers' sons, should be enabled to attend these colleges at a merely nominal expense. This can only be done through a liberal spirit of the State Legislature, in making ample appropriations for these colleges, and the strict observance of such regulations as will enforce both a theoretical and practical agricultural education by them.

In connection with these colleges should be all those helps in the way of experimental work, which are so valuable to the intelligent farmer. A movement of an extended character in behalf of experimental Stations, to be in part supported by the General Government, is now pending; and as one of the best methods of agricultural education, it should have the hearty support of all interested in the farmer's welfare.

Baltimore Co.

W. H. R.

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### Let Us Have Good Roads.

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Nothing adds to the value of a farm more than good roads in the country adjoining it. If, during any part of the year, it is inaccessible because of the mud, its value is cut down very much. It is bad policy to fritter away money in small sums over a large district, for very little good is accomplished by so doing. Make permanent roads, if only a short distance each year, and before many years your entire region will more than double in the value of your lands. It will be noticed by travellers that as soon as your locality is reached, no road troubles are to be met; and this fact will outweigh numerous other considerations with anyone wishing to make a permanent home. Make the road so that it will be hard and smooth; whether the season be hot or cold, wet or dry.



## EDITORIAL BRIEFS.

## FOR FENCE POSTS.

We find the following application very highly recommended as a preventative of decay. Linseed oil and pulverized charcoal mixed to the consistency of paint, and liberally administered to that part of the post to be placed in the ground. It is said to render any kind of wood, even that most subject to decay, "rot-proof."

## CHICKEN THIEVES.

We hear of depredations by chicken thieves throughout this region more extensively than for many years past. Is there no remedy for this? Farmers should take the necessary steps to entrap the thieves, and teach them a lesson that will be a terror to them in the future. Night robbers have no rights which the farmer is bound to respect.

## GARDEN SEEDS.

Be careful in selecting your seeds. Get them from some party on whom you can rely. It is aggravating when you have taken the utmost care to put your garden in prime order, to find your seed not germinating, or, if they do grow, to find them not what you expected and bargained for. The only remedy is to know the party from whom you buy.

## THE GENERAL PURPOSE HORSE.

Many different ideas are given on this subject, and we also will express our idea of it, including one or two items not usually mentioned. He should be a horse of good size, say about 1300 pounds weight; moderately brisk on the road as a driver, and a quick walker; of good general health, change of food not effecting him to any perceptible extent; compactly built, well proportioned, and withal, of good, docile disposition. It will not be objectionable if he is of some dark color, a white or grey horse requiring much extra

work of sponge and water. Such a horse will fill the bill wherever he may be placed; and the family will enjoy the ride behind him to a neighbor's house or to church, without feeling that they are overburdening him on the road.

## FENCES.

Wherever the law is such that the farmer is only obliged to fence in his own stock, we hope he will take advantage of it, and strip his farm as much as possible of these costly appendages. Fences eat up half the profits of farming, at the very least; and there are many farms in Maryland, that, if forced under the hammer, would scarcely sell for enough to pay for their fences. The sooner abolished the better.

## CORN.

There is difficulty in storing soft corn in large lots, as it easily moulds and becomes injurious to stock and sometimes even poisonous. It is believed that many cases of sickness in cattle and hogs are due to feeding rotton or mouldy corn.

## STRAWBERRY PLANTS.

A strawberry grower says some strawberry plants are naturally barren and should be pulled out and treated as weeds. He goes over the patch when the plants are in blossom and pulls up all plants that have not blossomed.

## STOCK TO BE WELL SALTED.

It will not be long now before the stock will be turned out to pasture. Do not forget that as soon as they begin to crop the grass, they should have plenty of salt. It prevents many affections of the bowels, and preserves them in healthful condition at a trying period of change in food.

## LEARNING FROM EXPERIENCE.

There is certainly a foundation for the general feeling among farmers to ridicule "book farming," because a large part of the farmer's work must be actually experienced in order to result favorably. Personal experience, or the experience of others is absolutely necessary in farming.

It is only in so far as books can give the farmer the actual experience of others, situated as he is situated, that he can realize their value. However, the wise farmer will also make good use of book knowledge.

**"GO WEST, YOUNG MAN."**

This used to be a very popular saying, but with the same enterprise and energy that would carry the young man to success in the West, there is no region better adapted for the young man than this State of Maryland. Plenty of cheap land easily restored to great fertility, good markets, good society, schools, churches, and all surroundings to make a happy home. Young man, visit Maryland before you "go West."

**PEACHES AND FROST.**

In conversation with Col. James Wallace, of the Eastern Shore, he gave us some of his experience with peach trees. From personal experiments he has become satisfied of the following facts: Trees that lose their leaves early are apt to have their buds swell during the warm weather of autumn, and every bud so swelling will be killed during the winter. He therefore cultivates his orchard and feeds it, so that it will hold its leaves far into the autumn, and thus insures his buds against the power of the winter's cold. In this case he only has the late frosts of spring to contend with, and is much more confident of a crop. Try this experiment. We shall be glad to have it confirmed in other parts of the State. If found correct in other localities it will be worth thousands of dollars to the peach growers of our country. It is one of those discoveries that add to the farmer's peace of mind by giving greater certainty of reward for his labor.

**SETTING OUT TREES.**

This is the period for setting out fruit and ornamental trees. We recommend a very liberal spirit in this direction. Make

the holes for the trees larger than the roots will actually require, and pulverize the soil thoroughly in the holes. If you can have rich soil without adding manure, it will be best; but if not, then add old, well rotted manure, thoroughly worked into the soil. Stand the tree straight by a plummet gauge, spread the roots carefully, and fill in the soil so that it will be in very close contact with all the roots. Compact it well, and you will run but little risk of losing your trees. Trees fail to live sometimes, because of the careless method of setting them out.

**FEEDING THE FRUIT TREES.**

When you would feed your fruit trees, go about it in a workmanlike way. The roots extend some distance from the body of the tree, and very few of the very small rootlets are immediately around the trunk. Place the food where these rootlets will reach it, for these convey the great portion of the nourishment. It has been found by experiment that very few fertilizers can equal hard wood ashes for fruit, and none are better. Broadcast it over the ground, covering a space at least ten feet from the trunk, and work it into the soil. It is such work as this that talks to the eye and the pocket of the farmer.

**ARBITRATION BEST FOR FARMERS.**

Arbitration is almost invariably preferable to litigation. It is not only the easiest quickest and cheapest way to settle disagreements, but saves much vexation and subsequent dissention. Were individuals, corporations and nations, to arrange their disputes by arbitration, instead of resorting to litigation and warfare, the people would be saved millions of treasure, and the world spared much shedding of blood. A peaceful settlement of difficulties is usually by prosperity, while "going to law" or war, usually results in loss and suffering to both contestants. Indeed, litigation and warfare, are twin relics of the dark ages, and so long as they continue in vogue, we may look in vain for harbingers of the promised millen-



ium. Of all classes, farmers should so far as possible avoid entering into litigation, for whether they win or lose, they are proverbially worsted, the lawyers usually taking the cream, and leaving only the skim-milk to the winning contestant. Truly, there is neither glory, nor honor, profit nor pleasure in litigation, and the less people who profess to live "on the square," according to the Commandments, have to do therewith, the better it will for both their present and future peace and prosperity. Even in the most aggravating cases of trespass, and the like, no good citizen should resort to the law, until all amicable attempts at settlement have failed. Indeed, and finally, whatever may be the provocation, don't get mad, and impulsively prosecute your neighbor, but keep your temper and—ARBITRATE.

D. D. T. MOORE in *American Agriculturist* for March.

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**WHAT WE HAVE DONE FOR AGRICULTURE, AND WHAT AGRICULTURE HAS DONE FOR US.**

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At the recent meeting of the American Agricultural Association, held in New York, we listened with a great deal of interest to the address of the Hon. P. T. Glass, member of Congress, of Tennessee, and believing it would interest and gratify our numerous readers, we have the great pleasure of publishing it in full in our present number.

MR. PRESIDENT:

The government has done so little for the farming interests, that it will be more difficult to point out what it has done, than to show what it has failed to do. In fact, the farmers of our country have asked but little of the government, and that little, has been doled out with a parsimonious hand. In the early settlement of the country our fathers found the virgin soil of unsurpassed fertility, and scarcely thought, that it would ever become necessary to call upon the government for aid. It was soon ascertained that a sufficiency of the farm products could be raised for home consumption, and leave a surplus to go abroad. The value of these exports continued to increase until as early as 1820, they were found to constitute more than 80 per cent. of our entire for-

eign exports. And they have not since that time fallen below 70 per cent., except for the years 1864 and 1865; and have generally averaged from 75 to 85 per cent. of the whole export trade. It was the large export of these products in the years immediately preceeding resumption, in 1879, that made that financial policy possible.

The balance of trade, during this period, caused the precious metals to flow to our country in payment for these exports. Otherwise, gold would have gone abroad to pay interest upon our indebtedness held by foreigners. The agricultural classes make up more than one-half of our entire population, they feed themselves and those of our people engaged in all other industries, and furnish the raw materials, which when woven into fabrics, clothe the masses, leaving the large surplus which goes abroad and forms the basis of our industrial prosperity.

It is reasonable to estimate that the farmers, and tillers of the soil, pay one-half of all the taxes collected by the general government. Now, what becomes of these taxes? Are they disbursed with any regard to equity? Are all classes and industries equally fostered and encouraged therewith? Let facts be adduced to testify. Since the organization of our government there have been appropriated for the benefit of Commerce, say the improvement of rivers and harbors about \$105,000,000; to railroad corporations, \$100,000,000, in government bonds, principal and interest, and in public lands more than \$200,000,000 in value. Drawbacks have been paid to those engaged in the fisheries, and in the manufacture of imported raw materials that were again re-exported from the country, after having been manufactured here. Subsidies have been granted and paid to Ocean going mail steamers, and untold millions to our manufacturers under the operation of our protective tariff policy.

Now, Mr. President, I do not propose to discuss here and at this time, the policy of such legislation; but simply to show how much government has done to promote these great industries and how little it has done to advance and develop the greater industry of agriculture. In all the years of our history, Congress has appropriated less than \$5,000,000 in aid of agriculture, the mother of commerce and manufactures. This in-



dustry received no recognition at the hands of Congress prior to the year 1839: then it was started as a division of the Patent Office, with an annual appropriation of \$1,000, for the purpose of collecting and distributing seeds, making investigations, gathering statistics, &c. Down to the year 1854, the annual appropriations had not reached \$6,000 in any one year, yet a foundation had been laid and much good done. During the administration of President Buchanan this industry was further recognized by the appointment by the Secretary of the Interior of a special Superintendent of Agriculture. And in 1862, the Division of Agriculture was made a separate department with its powers and duties greatly enlarged. This enlargement of its powers, and elevation of the rank of its head was due to the fact, that the feeding of the Union armies then in the field had become of paramount importance to the country. It was at that time, also, that in order to encourage and stimulate the production of supplies for this army that the land donations were made to the States for the purpose of endowing Industrial Universities. This, Mr. President, in short, is about all that Congress has ever done in aid of the great farming interests of our people. This is very small, in view of the magnitude of the industry and in view of the additional fact, that it has done so much to make us as a people, and as a nation, prosperous and independent at home, and respected and renowned abroad. Ours has now become the foremost agricultural country of the world, leading all others in the aggregate yield of corn and wheat and cotton, and hogs and tobacco, and is far ahead of all others in most of the remaining products of the soil. Chicago now outstrips Odessa on the Black Sea, once the largest grain distributing port of the world. New Orleans exceeds all other cities in the value of her cotton trade, and Louisville as a tobacco market. In order that our country may maintain her primacy in this regard, and continue to contribute, as she does at present, more than 80 per cent. of all commodities transported by river and rail, Congress must become more liberal in appropriations, for the highest development of this industry.

What have other countries done in aid of agriculture, and in order to relieve them

from dependence for the farm products, of their great rival, the United States?

France expends annually, I give only round numbers, . . . \$20,000,000 for Agriculture and commerce.

Brazil, for Agriculture,	\$12,000,000
Russia	" 11,000,000
Austria	" 5,500,000
Great Britain	" 795,000
Hungary	" 4,000,000
Italy	" 1,914,000
Japan	" 1,000,000
Switzerland	" 142,000
United States	" 650,000

Of all these countries named, the little Republic of Switzerland alone, does less to promote agriculture, than the great government of the United States. Thus, Mr. President, it will be seen how little this government has done for its greatest industry, in comparison with what other governments have done.

Great Britain has been our best market, and the largest consumer of our cotton and wheat, and has taken largely of our meats and other farm products. And she has been unceasing in her efforts, and almost reckless in expenditures, to achieve independence of us, as regards her supply of these products. She has explored the civilized world, and expended millions, in search of countries possessing a soil and climate, suitable for the production, especially, of cotton and wheat. She has subjugated countries, at least one of them, possessing a population five times that of her own. Chiefly, that she might not remain dependent upon other countries, and more especially upon the United States, for these necessities. The highest reach of statesmanship has been directed to the development and building up of the agricultural industries, in her colonial dependencies, in order that she might there produce the raw material of her manufactures, and the breadstuffs for her people. For nearly a half century she has used the best talent at her command, experimenting in the production of cotton in India, nor has she hesitated to make any necessary expenditure for expert labor or scientific knowledge in prosecuting investigations to accomplish this end. And her far seeing statesmen believed that this end was about to be attained, when the war between the States had partially cut off the world's

supply of cotton. The price of this article had become so high, that the unfavorable conditions of climate and seasons, for its production in India, had been well nigh overcome, and its growth and production improved and largely increased. But the war ended, the crop of our country in a few years reached its former quantity, and assumed its normal position in the markets of the world. India rapidly fell far behind us and soon ceased to hold an important position as a cotton producing country.

British silver (*for that is the coin of India*.) has gone to India, to build railways for the transportation of the wheat and other farm products to the sea-board, and these railways traverse the broad valleys of the Indus and the Ganges, that stretch away in fertile plains to the foot hills of the interior, affording largely increased facilities for transportation. The mountain streams of the country have been tapped by irrigating canals that take the water through the almost rainless regions, to the lower valleys, fertilizing and fructifying the growing crops for hundreds of miles along their way. Through the use of this British silver, the production of wheat has been so stimulated and increased that the export to England has reached the large quantity of 40,000,000 of bushels, thereby, virtually driving that quantity of our wheat from the British markets. The consequence was, a great depression and stagnation of the wheat and flour industries of this country, forcing wheat down to a lower price during the summer of 1884, (and it is but little better now,) than it had reached for a century.

Whilst England was making these great efforts to build up and develop the agricultural resources of her East India dependencies, so as to make her independent of our wheat and cotton fields, other causes were operating to deprive us of our next best customers, Germany and France. Each of these nations have become somewhat embittered against us in consequence of the heavy duties imposed upon their manufactured products imported into this country, and have retaliated by orders and decrees injuriously effecting the introduction of our hog and beef products into their ports. These highly protective duties, whilst largely increasing the cost of all manufactured articles consumed by the

farmers, whether of domestic or foreign manufacture, has the tendency of shutting them out from their best foreign markets.

Now, the farmer asks no special privileges, nor does he desire to put burdens upon any class or industry, and he accepts uncomplainingly all the burdens of government equitably placed upon him, but he does protest against a system of legislation that is destroying his best foreign markets. He expects and demands, that some regard shall be had to the principle of reciprocity in legislation affecting his freedom of access to foreign markets. Give to him friendly markets in Europe, and other countries, for his cereals, provisions, cotton, tobacco, and other products, and he cares but little for any protection against foreign competition, he can then compete successfully with the world.

Congress, now, seems to take a broader and more liberal view of this subject than it has heretofore done. And there is a fair prospect that that body will, by its legislation, elevate the farming industries of the country to a higher plain. What is most needed to accomplish this desideratum is for Congress to do three things:

First.—To make the Department of Agriculture one in fact as well as in name, and give to its Secretary, the rank, powers, and privileges of a Cabinet Minister. The head of the Department then having a voice in the treaty making power, will be better able to protect the farming interests than they have at times been, especially, in regard to reciprocity treaties affecting the imports and exports of the farm products. Next, let Congress pass a bill making annual appropriations to support Agricultural Experiment Stations in connection with the "Industrial Universities," created and endowed under the act of 1862. These Universities will then become the source whence will emanate the results of scientific research and experimentation. Soils will be there analyzed, the physiology of animals and plants will be more fully made known, and the observing and inquiring farmer may become more familiar with the elements of plant food, and the chemical constituents of his soils. He will learn more of the germinating qualities of seed, and the effect of special fertilizers on various crops. Science will be called into requisition to supplement the productive powers



of our rapidly exhausting fields and meadows. Give to the farmer in addition, the full benefits of the "Signal Service System," and he will be on the high road to a grand success. Let these Stations be established at all county seats and other important agricultural centres, where there may be a telegraph line, so that he may be warned by the flag of the approach of every rain, and frost, and snow; so that he will be enabled to put his household in order, and thereby save thousands of dollars of value to the country. This done, the farmer may the better regulate his planting and harvesting, and save much in the way of hay and other farm products from rains, and tobacco, and fruits, and stock from destruction by frosts and snow. Notably, the orange crop of Florida might under such a system, have been saved to the owners, during the recent extraordinary blizzard, and hundreds of young stock cared for and saved from perishing by the cold and snow.

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### ALL ABOUT POTATOES.

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Years ago the potato crop was immense. Huge bins in the cellar, or underground receptacles in the fields, were necessary to store the produce of a very few acres. The common crop was 400 or 500 bushels per acre; and often it rose above that a hundred bushels or so.

Now the average crop goes from 100 to 150 bushels, and more than this is an extra good yield.

Years ago the potato could be relied upon from year to year as a sure keeper, good from the moment it was taken from the ground until new potatoes came again.

Now we hear constant complaints as to the loss by rot, and the quality is a subject of constant suspicion, especially after lying during the winter. Does the blistering scab destroy at once their quality?

The late Rose has held its place for some time; but what are we to do now that the "red lines" are destroying the late Rose quality? How many questions press upon us in connection with the potato; for it is

one of the great staple articles of the worlds' food.

Undoubtedly the conditions of the soil account for the diminished crop. We hear occasionally now of large yields on newly cleared lands, where the hard wood forest has been cleared away, and the brush burned. But the potato elements have been eliminated from the soil so generally, that we cannot expect again the quantities of other years.

The rot has come from the same cause, the want of some element in the soil that shall give healthfulness to the entire plant and furnish the tuber with every element needed to perfect its keeping qualities.

Much room remains for the work of science here. All the professors at our Experimental Stations and Agricultural Colleges seem thus far in the dark. Their practical experiments and tests of perfect soil and perfect fertilizers have proved but little more than that the work is still inviting them. If they will concentrate their attention on this subject, however, we may expect a solution in time.

Meanwhile we want to learn of the coming potato, to take the place of the Rose. Many good potatoes are on the market, but they are generally prolific only in certain localities. Some of them lose their best characteristics on the table, if not grown in a peculiar soil. The Rose, like its many popular predecessors, has received its death blow; and already its quality as first-class is gone. It breaks to pieces before it is sufficiently cooked, and has hard, soggy places in it. Whoever can give us a potato which will open like flour on the plate, white and mealy, of good flavor, medium sized, fairly prolific, adapted to all localities, and a good range of soils, will prove to be no small benefactor to his countrymen.

In other lands the potato has been at the base of some of the gravest political troubles, and has forced upon governments



questions which have involved the most serious issues of peace or anarchy. A good crop of potatoes modifies considerably the urgency of the Irish question; while its failure means famine and fury. We trust, however, it will hold no such powers in our land; still we will hail most heartily the incoming of the best potato, the ideal potato of the future.

### SCIENTIFIC AGRICULTURE.

This subject has occasionally appeared in our columns; but we are so pleased and interested by the peculiar method of treatment given it below, that we place it once more before our readers that they may partake of our enjoyment in its perusal.

#### A Startling Statement.

Before the Farmers' Institute at Elmira, under the direction of Cornell University, Kendall Adams last week delivered an able address, entitled, "A Plea for Scientific Agriculture." He said, among other things: "It is an interesting and even an impressive fact that our bountiful mother nature cannot be cheated or outwitted. In all the range of inorganic life we find no evidence of self-renewing or self-originating power. The ingenuity of man has never yet been able to construct any machines that can do more than transfer the energies of nature from one form to another. In the fertility of the soil nature seems to be a beneficent and all-bountiful mother; but here, too, she places around us the same limiting conditions which is the all pervasive law of nature that the mother who feeds us requires in turn to be fed. As soon as we begin to withhold her supplies she ceases to nourish us; and in the end we are either left to starve or betake ourselves to other sources of support. What illustrations of this great law does the history of the world afford? In all the vast regions of the orient it may almost be said that the last sob of civilization has been hushed, and that everywhere there is nothing but barbarism and desolation. If we look into the causes of these results we shall find that, knowingly or ignorantly, a systematic attempt has been made to defraud nature of the operations of the law to which I have alluded.

The trees have been ruthlessly swept away by the greed of man; evaporation has thus been diminished, and the amount of rainfall has greatly declined, until it has, perhaps, ceased altogether. The continuous drafts made upon the soil have been met with no corresponding returns. And so in place of the rich soils that formerly were abundant throughout the East we now find naught but sterile waste. The sands have drifted over the palaces of kings, and the fertile fields have been given over to the wanderers of the desert. Is this result necessary? The modern history of Europe shows that it is not. In England, France and Germany during the last fifty years fertility has even increased under the influence of scientific agriculture; while in England fifty years ago the average crop of wheat was only about 15 bushels per acre, it is now 29.9 bushels. In Germany a similar result has been reached. There is need of similar instruction in our own country, for we are everywhere confronted with the melancholy fact that the product per acre of our farms is steadily diminishing."

Figures were given by the president to show from the agricultural reports of the last twenty years that the growth per acre of wheat, corn and oats has steadily diminished in all the States.

### CLOVER AS A FERTILIZER.

[SECRETARY CHAMBERLAIN.]

Clover seems to be the great scavenger of agriculture, a gross feeder capable of collecting the plant food of the soil held in solution too dilute or too deep down for the roots of cereals to thrive upon it, and of rendering the insoluble soluble, and storing it up in large quantities and available from near the surface where the young roots of the cereals can at once find and use them. Dr. J. G. Holland makes an Irish character in one of his books say: "The peg (pig) 'll ate wot there won't nothin' else ate, and thin you kin ate the peg." This seems to be the office of clover, to eat what the wheat can't eat, and then die and let the wheat eat it.

One hundred bushels of oats carry off from the soil 66 pounds of lime; 100 bushels of barley, 39 pounds of lime; one ton of clover, 17½ pounds of lime; one ton of turnips, 6 3-5 pounds; one ton of potatoes, 30 pounds.

Plants feed from elements formed in the soil, air and water. The mineral food comes from the soil, as does a large amount of their nitrogen. Their carbon, oxygen and hydrogen and a part of their nitrogen comes from the air and from water. Food for plants must be in solution before they can appropriate it. Nothing, of course, can be taken up by the roots except it is in solution. Hence the necessity of having the soil moist, and hence the damage done by drought. The aim of the cultivator must always be to keep the soil moist, and this may be accomplished in a measure by constant working it. Hence we have so frequently urged the constant working of the soil during times of drought.

It is always better to spread manure as it is drawn, than to put it in heaps. When put in large heaps a large portion of the soluble matter is left in the ground under the heaps, and makes these spots too rich, and of course deprives the rest of the ground of its proper share. When it is spread as drawn there is no waste, the soil is equally benefitted, and when the ground is worked over in the spring with the cultivator or wheelbarrow the whole is mixed well together. There is also a saving of labor, as one handling is avoided.

It is frequently said that while soda increases the profit, it greatly deteriorates the soil; that it robs it too rapidly of phosphoric acid. By experiments that have been tried the following conclusions have been arrived at: That if a soil rich in phosphoric acid be fertilized with soda, the plants will satisfy themselves with the acid from their commencement of growth, and bring the same to good account, but if the soil is poor in the acid, it will be imbibed very slowly until so far developed as to be unable to make use of it, for which reason a use of soda should always be accompanied by a use of phosphates. Then there will be no destruction of the soil.

#### Catarrh and Bronchitis Cured.

A clergyman, after years of suffering from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a perscription which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self addressed stamped envelope to Dr. J. Flynn & Co., 117 East 15th St. New York, will receive the recipe free of charge.

#### SILK CULTURE AGAIN.

We have frequently referred to this subject; for we have taken a great interest in the culture of silk as a source of income for that part of the farmer's family who are generally confined to the house, and now expend their leisure upon the poultry. We have thought silk might prove equally as valuable and certainly as pleasant an occupation. The item below is one more contribution to this end.

##### Silk-Making in China.

The home manufacture of silk in China is almost universal, and affords remunerative employment to hundreds of thousands of women. In many cases the wives and sisters of poor laborers become the mainstay of the household. The process is very simple, and as follows: In a moderately warm room a matting is strewn with fresh mulberry leaves. Upon these are placed several hundred silk-worm eggs. As fast as the silk worms eat the leaves fresh ones are supplied, care at the same time being taken to remove all those mildewed and moldy. The feeding is done once or twice a day, and takes about fifteen minutes each day. At the end of about forty days ninety per cent. of the eggs have become large cocoons. These are scalded, slit at the end, and the dead worm removed. The empty cocoon is then put on a small bamboo stick that fits it loosely. The end of the thread is then pulled out and attached to a small piece of lead, shaped like a top, from whose upper surface projects a long, thin stem, terminating in a hook. The top is then twirled, and the weight and rotation serve to pull out the thread and spin it at the same time. When two feet are thus spun the spinner grasps the top, reels the spun thread upon the stem and fastens it with a running noose upon the hook. The top is again twirled and another two or three feet extracted and spun. Again the top is grasped, the noose untied by pulling the thread from beneath the hook, and the second reeled upon the stem. When enough thread is spun and reeled upon the stem the latter is removed and serves as a bobbin in the subsequent weaving. A new stem is inserted and the process re-begun. This ingenious but simple method produces a thread homogeneous and perfectly smooth.



The latter is now cleaned and, if desired, colored according to the pattern to be made. It makes a silk finer than the finest cambric. To increase its thickness the thread is doubled, trebled, or quadrupled, and then respun. The loom varies according to the wealth of the weaver. The common type is a simple affair, similar to the rag carpet loomes of New England. These, in skillful hands, turn out a superior kind of dress goods. More complicated looms are at times employed, but are not popular. The entire outfit in China costs about \$1 for eggs, \$2 for the loom, add ten cents for the top and stems. The leaves are gathered by the children, and the labor is supplied by the women of the household. Silk in China varies from fifteen cents to \$4 a yard. Upon this basis an intelligent and active woman in China makes twenty-five cents a day without interfering with her domestic duties. This is equal to \$1.75 in this country. There would seem to be, therefore, a splendid field in our country for this industry.—*Chicago News*.

Since the above was in type, we have received from the Women's Silk Culture Association their reports of the expenditure of the small amount of government aid thus far received in behalf of silk culture. It is a good record and shows the gradual success in overcoming the difficulties which are always before any new movement of this character. It opens the market to all who may engage in silk culture, and insures a reasonable degree of success to every enterprise in this direction.

#### Ensilage Successfully Tested.

Mr. George W. Palmer, of Saltville, Va., the possessor of one of the largest herds of "shorthorns" in the world, and also one of the most successful farmers in Virginia, put up the past season 1,600 tons of ensilage, though living in the very heart of the blue-grass region. Mr. Palmer has just written a letter giving his experience in the use of ensilage, and it is altogether favorable. He has been feeding it to his cattle a month with the greatest satisfaction. Mr. Palmer prefers corn for ensilage, from the reason that he gets from twenty to fifty tons of green food per acre, according

to the fertility of the soil, but he says any green crop is fine, such as clover, rye, peas, etc. Mr. Palmer predicts that "it will not be many years before all who winter cattle will put up ensilage." He is of the opinion that "the best food will be obtained by letting the corn get nearly ripe, as the ensilage is sweeter."—*Sun*.

To the Editor of Maryland Farmer.

#### THE ROLLER.

Decided benefits result from compacting the soil for most, if not all, seeds. The benefits are, apparently, most marked in the case of small, delicate seeds. Hence the gardener, more than the farmer, can gain by the roller; but it does not follow that the farmer will not gain enough to pay him well for the labor expended in compacting the seed-bed, since the roller also fines the soil—a condition of the ground the value of which is well understood. The roller thus makes it possible for us to give seeds and plants the two most essential conditions of germination in the one case and growth in the other—fineness and compactness of the soil.

Notwithstanding this, the use of the roller may be a positive hurt. The roller must be used judiciously; and its judicious use takes into account the character of the soil, and also the season. Clay soils are likely to become too compact without any outside efforts to compact them; and while the use of the roller may be necessary to reduce the lumps which the plow turns up in a clayey ground, usually the harrow should be used not only in connection with, but after, the roller. If the roller is used last, it must be a very light one. It is extremely doubtful if the roller should ever be used upon clayey land when it is damp; and it, more than land of any other character (if we except much soils) is found in this condition. It follows that the judicious use of the harrow upon clayey soils must be limited.

On the other hand, the use of the roller upon light soils may well be extensive, and is safe unless the ground is quite wet, which will rarely be the case. Such soils are slow to compact of themselves, and are so light that under ordinary circumstances the use of the roller or some better instrument to compact the seed-bed is necessary



to the profitable germination of the seeds or the thrifty growth of the plants, especially if the weather is inclined to be droughty. Hence soils may be worked, even with the roller, when they are quite wet, since, on account of their character, they do not "bake" or readily solidify. Of course the benefits resulting from the use of the roller upon light soils are greater than upon heavy, clayey soils.

There is more need of the roller in preparing the seed-bed, and its use is safer, in the fall or late summer, than in the spring. In the spring all soils are stickier, and more disposed to "run together" and harder, than in the fall; and hard, dashing rains are more frequent. Generally, the roller cannot be used too much upon ground for fall wheat; for this ground is usually lumpy and should be thoroughly fined, and as thoroughly compacted. The land is also dry, and hard rains are unfrequent, hence there is very little risk to run in using the roller extensively.

But in the spring the conditions are different, and spring crops, apparently, do not derive as much benefit from a compact seed-bed as fall crops do. The danger from using the roller is considerable, as a hard rain may come just after the roller is used, and beat the ground down so solid that it will be exceedingly difficult to plant the seeds, or impossible for many of them to reach the surface if already planted. I must confess that only sad experience taught me to be careful how I used the roller in the spring. Several times hard rains came just after I had rolled a field for corn and had it all ready for planting, and as a result I had to wait several days for the ground to dry and then do considerable work on the field before I could get it in fit condition for planting. My advice concerning the use of the roller at this season is, go slow.

Quincy, Ill.

JOHN M. STAHL.

J. C. Barkley & Co.

We present to our readers this month the advertisement of the well known manufacturers of the celebrated "Enterprise" brand of roasted coffee and Ra Jah tea. Messrs. J. C. Barkley & Co., successors to Barkley & Hasson, we learn, since their resumption, that most all their old trade have come back again. The public could get no brands equal to theirs for the same price.

## LIVE STOCK REGISTER.

### COLOR IN BREEDING.

Each distinct breed of farm animals has its own distinctive color or combination of colors, and these are by no means without rule, but produced by careful breeding and selection, so carefully attended to within the last fifty years that a breed may easily be determined by these and other characteristic marks well known to all breeders. The Shorthorns vary more than any other breed, but whether red, white, roan, or a combination of these colors, they have no others. Anything darker than red—inclining to brown or black—is never admissible. The Dutch cattle—Holstein Friesian—are black and white, neither all black nor all white, though either of these colors may predominate, and the white is pure white and the black jet black.

The Jerseys are fawn, dark or light grisléd brown, generally carrying some white, not always, however. The Herefords are light red, with white face, legs, tail, sometimes the belly, and often the neck and a portion of the back lined white. The Polled Angus are pure black. The Galloways are more inclined to brown-black. The red Polls, a peculiar shade of red, neither dark-red nor yellow-red. The Devons are deep red—a mahogany bay—with no white except the switch of the tails and occasionally the udder white. The Sussex are a brown and a lighter red. Then there are peculiarities of the horn, poll, and of hair, easily distinguished by competent breeders. There are also peculiarities of form and shape, from the massive square or rounded forms of the beef-makers, to the wedge-form in front, and deep thighs of the milk breeds. All these must be carefully studied before the breeder is capable of selecting for himself. There is no place where these lessons may be more accurately studied than at our great annual fairs, and at Chicago this fall will be presented an array that may be so studied to advantage.

In horses, the thoroughbreds vary in color more than other class. Yet here the prevailing color is chestnut, yellow bay, or blood bay, with more or less white on the limbs. They are seldom black, although gray is not uncommon. Of draft horses, the Shire horse inclines to bay or brown;

the Clydesdale to bay and chestnut, with more or less white. The Cleveland bays are blood or brown bays, and the Percheron-Norman runs from white to black, dark and dapple gray being the predominant color.

Again, in hogs, color is an attribute of blood. The Berkshires have had the sandy complexion gradually bred out of them, and the color is now deep black, with white nose, feet and tail. The Essex are black, often with a bluish cast. The Chester whites are pure white, so are the Yorkshires, and their variety, the (so-called) Suffolk. The Poland China is now bred entirely black, except small patches of white on the body. The Duroc-Jersey is sandy red, like their alleged progenitors, the Tamworth red, but superior in every respect. There is no better school of study than at our great annual fairs.—*Chicago Tribune.*

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#### "BEAU REAL."

We give on opposite page through the kindness of Messrs. Shockey & Gibb, the well known importers and breeders of Herefords, Lawrence, Kansas, a picture of their yearling Hereford bull Beau Real 11055, drawn by the distinguished artist, Cecil Palmer. In a letter received from Messrs. Shockey & Gibb, they state that Beau Real is a wonderful youngster, weighing at twenty-eight months old 1730 pounds, in active service in the herd. In our travels in England we could find none at his age to surpass him in quality and substance. His career in the show yard and his calves, now dropping, sustain all the claims we can make for him.

Our herd, as it stood prior to making two importations in the fall of 1885, ranked very high; taking sweepstakes herd prize at the Western National Fair in September, with Beau Monde and four cows—Hebe 8th, Stonebrook Rose, Dowaton Beauty, and Lady Florence; and sweepstakes for best Hereford cow or heifer, any age, with Hebe 8th. Beau Real winning first prize as best yearling bull and sweepstakes for best Hereford bull, any age. Competition in all classes very strong.

We built our herd by careful personal selections and importation, and culled un-

til now we have one of the best herds in existence. Of the merits of Hereford cattle every reading man is familiar. Suffice it to say that in this country, as in England, they have made themselves famous as the grass cattle.

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#### FAT OR LEAN PORK.

"Feeding for Lean Meat," is the title of Bulletin No. 19 of the Missouri Agricultural College series. Previous bulletins have shown that quite marked effects had been produced on the relative proportions of fat to lean in pork by different methods of feeding; that albuminous food gives us lean meat, while carbonaceous food, like corn or corn meal, increase the proportion of fat. The latter experiments registered in bulletin 19 accord fully with the results of previous trials and indicate that so far as the pig is concerned we have it largely in our power to elect whether our pork shall be mostly grease or sweet, nourishing lean meat. The late trial was with four pigs, one lot being fed on ship stuff and blood, the other on corn or corn meal. Both lots weighed about alike, but the pigs fed on ship stuff and blood, highly albuminous food, had forty per cent. more lean exclusive of bone than the lot fed on corn meal. Much care was taken to separate the lean from the fat, two whole days being occupied in cutting up a single pig. Professor Sanborn reminds farmers that the "block" is no test of breed influence in the character of uncut meat unless measured by the character of the food given, and that managers of Fat Stock Shows should recognize this fact when arranging their premiums and requirements. Feeders will learn from these experiments that if they would increase the palatability of pork for the American taste they must feed their pigs on something beside clear meal or corn. Milk, apples and roots from the farm, and wheat midlings from the markets mixed with meal will produce a better grade of pork, while at the same time the cost will be diminished.

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Subscribe for the MARYLAND FARMER, only \$1.00 per year with a valuable premium.

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Ask your friends to subscribe to the FARMER.





YEARLING HEREFORD BULL BEAU REAL 11065.

Property of Messrs. Shockey & Gibb, Lawrence, Kan.



### THE TREATMENT OF BULLS.

A bull is quite as amenable to kindness as is any other animal. Firm, yet kind treatment, will reduce bulls to obedience and render them easily managed. From the age of calfhood they should be regularly handled and accustomed to the contact of human beings. At about one year old they frequently become playful, and this often mistaken for vice, whereas it is but the playfulness of youth. This is toned down by placing a ring in the nose of the bull. Whenever practicable and, there are few cases where it is not so, bulls in service should be kept in a building where the milch cows are kept. They thus become accustomed to the regular association with human beings, and as docile as are the cows. Never strike a bull without reason; they have long memories, and may retaliate when least expected. If disobedient, one quick stroke is usually sufficient, and the animal knows the reason for it. A whip is the best implement to use in connection with a bull.

The best way to spoil a bull is to keep him in a place by himself, to feed him through a trap-door, and never to bring him out except when he is wanted for service. When so kept, the getting him out is usually a formidable affair. So kept, he grows moody and savage, and it is to such bulls that we usually look for accidents. The attendants should never display fear of a bull. If the latter once perceives that his attendant is afraid of him, and they are quick to see the signs, the man should be replaced, or it is likely mischief will result, and the bull be spoiled.

Young bulls become playful when they are beginning to want service work. At this time, if you do not keep an eye upon them, they will land the attendant a cropper when feeding, especially if they think he is not quick enough in supplying their food. For this a foolish attendant will thrash the animal, and probably he will take a stick with him every time thereafter that he goes to feed it, and on every such occasion the bull will come in for a few hard whacks. This is just the way to spoil him for life, for he conceives such a hatred of the human race that he is never afterward safe. The best cure is a ring, and the

putting in the ring is simple and but the work of a few minutes.—*Lon. Live Stock Jour.*

EXCEPT for sheep, which masticate and digest more thoroughly than other animals, grain for any kind of farm stock should be ground. This is especially important for cows. Though these re-masticate their food, much grain fed whole will pass through them, giving little benefit. When ground, meal may be mixed with cut straw or other coarse food that would not be eaten, and it will digest better in this more bulky form than if fed separately.

MORE OF THE NORMAN PERCHERONS.—Mr. Wm. T. Walters has purchased 25 of the celebrated Norman Percheron horses, so justly celebrated for their enormous strength and gentle qualities. The lot includes 15 stallions and 10 mares. Mr. Stricker, Manager of Mr. Walters' farm, went out to France to inspect them, and pronounces them a good lot.—They are all of the pure Percheron race and were selected by an agent who was instructed to procure the best, without regard to cost.

### GETTING READY BEFOREHAND.

Mince pies are better for being kept a week after baking. Tarts may be prepared the day before they are wanted. If it be inconvenient to bake the chicken pie on Thanksgiving day, bake it the previous day and warm it for the dinner. Vegetables may be prepared for cooking and kept in a cold place. Cranberry jelly may be made, nuts cracked, apples wiped, grapes and pears put in a cold place, raisins and nuts arranged in dishes, turkeys stuffed and made ready for roasting. Remember that the chief aim is to produce happiness, and that many of the company will not be wholly happy if the mistress of the household must pass a good part of the day in the kitchen. On this account the greater the preparations made in advance, the better, so as to relieve the housekeeper of as many duties and as much anxiety as possible on the holiday.—Maria Parloa, in *Good Housekeeping*.

Show the FARMER to your neighbors and ask them to subscribe.

### A VARIEGATED FERN.

Under the popular but rather indefinite name of Silver Fern, we have the well known *Pteris argyrea*, one of the most ornamental Ferns in cultivation at the present time. It is an evergreen greenhouse plant of robust growth, the fronds being from two to four feet in length, the pinnæ being pinnatifid and the lower pair bipartite and of a beautiful and distinct silvery white color, margined with bright green, the decided contrast in color making it one of our most valuable ornamental plants for greenhouse and conservatory decoration,

specimens the young plants should be re-potted as often as necessary, and every available means employed to secure a rapid and uninterrupted growth.

This *Pteris* is one of the best Ferns we have for cultivation in the window garden, and can be grown with excellent results by following carefully the directions here given.—Chas. E. Parnell in *Vick's Magazine*, and furnished us by the editor.

### TOMATO PLANTS.

Tomato plants from self-sown seed ripen into fruit nearly as early as those started



A VARIEGATED FERN.

and, besides, it is equally at home in the window garden.

Propagation is effected by a careful division of the plant, and also by spores, the former being for amateur cultivators the most preferable method of increasing their stock. In dividing the plants, select those that have compound crowns, and cut them apart with a sharp knife, being careful to have some of the rootstock with a portion of the root attached to each. Now pot them, using as small pots as possible, water thoroughly and place in some cool, damp, shady situation until they commence to root, when they can be removed to their former situation. In order to obtain good

early in the hot-bed. In order to discover how much time is gained in securing ripe fruits by forcing the young plants, we planted a few seeds of the Livingston's Favorite Tomato in hills, in the open ground in the garden, April 24th, placing about ten seeds in each hill. These had vegetated on May 12th. No especial care was given the young plants and they were not covered at any time to protect them from frosts. As they grew large enough to crowd each other they were thinned to one plant in a hill, and afterward received exactly the same treatment as the plants that were transplanted from the hot-bed. The plants from seeds planted in the open



ground ripened the first fruit August 21st, or 119 days from planting, while plants of the same variety removed from the hot-bed, planted March 28th, riped their first fruit August 19th, or 114 days from planting. In other words, plants grown entirely in the open ground matured fruit in 25 days shorter time than those which were cared for in the hot-bed the first two months of their existence. The result is certainly striking, and suggests that the check given to the plants at the time of transplanting may have been nearly sufficient to over-balance all the time gained by forcing. We were careful to harden the plants in the hot-bed before removing them to the garden, in order that the shock of transplanting might be felt as little as possible, we potted the plants several days before replanting them in the garden, carefully shading them until they were rooted in the pots. Did the transplanting check the growth so much, or did the heat of the hot-bed enfeeble them? The subject merits further experiment.--*Prof. Everett S. Goff, New York Station.*

#### A Popular Clothing House.

We are pleased to invite the especial attention of our readers to the interesting advertisement of Messrs. Mabley & Carew, the progressive and energetic Clothiers and Merchant Tailors of Baltimore. This firm is now not only widely known throughout our State, but their patronage extends far into the regions of the sunny South. There is of course a justifiable reason for their remarkable prosperity and constantly increasing trade, and this reason is fully explained in our cheerful endorsement of their thorough reliability. The high standard of their goods, the uniform courtesy which they offer to all patrons and the undoubted truth that they maintain a system of most moderate prices. A thoughtful reading of their advertisement will present the fact that their establishment is just the place where farmers, clergymen, and all others will most likely find exactly what is best suited for their individual wear, whether clothing for men, boys or children, or furnishing goods. They have now added a merchant tailoring department to their extensive business enterprise, and suits to order will be made by their expert cutters

and tailors at prices decidedly lower than those of exclusive merchant tailors. The firm extend a cordial invitation to all who visit Baltimore to examine their splendid spring and summer stock.

#### Jewelry.

It is seldom we have the pleasure to call the attention of our readers and others to the above word, Jewelry; but this month we present to them for their patronage the firm of Messrs. Welsh & Bro. These gentlemen have been connected with this business for years and are acquainted with every branch of it. They were with the well known firm of Canfield Bro., & Co., and upon the death of Messrs. Canfield, they established the firm of Welsh & Bro. on Baltimore Street, near Charles, and have earned for themselves in so short a time, a wide-spread reputation of which they can feel proud; and any of our readers in want of articles in their line, and can not call on them personally, can feel safe in doing business with them through the mail. Their advertisement can be seen by referring to page 42.

#### Worth Trying.

An Ohio farmer tells the readers of the *Country Gentlemen* that he last year raised 300,000 cabbages, and kept the flea beetles away at a cost of only a single dollar. His method is to pour a gallon of spirits of turpentine into a barrel of land plaster, and when the plaster is dampened all through, as it will be in a few days, spread it broadcast over the field. It is better than lime or ashes, and may be applied when the plants are not wet with rain or dew. It is also said that the mixture will keep for several years without losing its strength. If this simple remedy shall *prove* a remedy it will bring much joy to farmers and gardeners.

#### Wm. Corse & Son.

We call attention of our readers to the advertisement on inside cover page of this number, of Clairmount and Furley Hall Nurseries, Messrs. Wm. Corse & Son proprietors. These Nurseries were established nearly sixty years ago and have earned a wide spread reputation. Purchasers would do well to give them a call before selecting elsewhere.



## THE AGRICULTURAL COLLEGE.

T. HERBERT SHRIVER,  
C. BOHN SLINGLUFF,  
THEOPHILUS TUNIS,

The Trustees of the Maryland Agricultural College visited Annapolis early in March, and were greatly surprised to find a bill before the Senate which had been twice read, and was about on its third reading to appropriate \$20,000 to establish an Experiment Station at Pikesville, Baltimore county, Md. The Trustees immediately drew up a Memorial to the Legislature showing the facts as they existed, and asked for a joint committee of both houses of the General Assembly be appointed to visit Pikesville, and also the Agricultural College, to investigate and determine the justice and propriety of such Legislation. The Committee asked for were appointed, and the following are extracts from their reports:

*To the Honorable, the Senate of Maryland :*

The undersigned, the Committee appointed by your Honorable Body to visit the Arsenal property at Pikesville, Baltimore county, and to report as to the adaptability of the soil, the quantity of grounds, condition of the buildings for the purpose of an Agricultural Experiment Station, beg respectfully to state, that they did visit the Arsenal property, and as thorough an examination of the same, in reference to their duties as said Committee, as their limited time would allow.

There are fifteen acres of land, of which nine are available for agricultural purposes. Its immediate surroundings are the farms of Messrs. Walker and Cockey and some building lots in the village. It is, however, questionable whether, in case an increased acreage should be desired for the purposes of the station, land could be bought at reasonable figures, if at all. The balance of the property is covered by the old Arsenal buildings, which, while more extensive than could be utilized for the purposes in question, might be adapted by a considerable expenditure of money for the same.

The buildings are generally in a neglected condition.

The title is undoubted, coming as it does from the United States Government.

*To the Honorable, the Senate of Maryland :*

Under a joint order of the House of Delegates and the Senate, your committee visited the Maryland Agricultural College on the 16th inst. We first went to a building known and called Rossburg. This is a substantial square brick building, having four rooms on the ground floor, six on the second floor, and four in the attic, also quite a large back building. It is in good condition. We then rode to the president's residence; this is a very comfortable two-story frame house, in quite good condition, with grounds handsomely laid out, making quite a pleasant and agreeable residence. During our ride over the property, before coming to the college buildings we gave much attention to examining the condition of the land, which we found to be rolling with many varieties of soil suitable for various agricultural purposes, and in quite good agricultural condition. We were shown some ground reported to have grown twenty bushels of wheat per acre, while other ground produces as much as forty bushels per acre; also ground that had produced this year fifty bushels of corn per acre. The farm buildings were in a fair condition; also the stock. After making this review, we went to the college building proper. This building is well arranged for the purpose for which it was intended; it is located on a high hill, some twenty or thirty feet above the surrounding country, in a large oak grove, and must be free from malaria, or autumnal disease. We examined the dormitories, recitation rooms, culinary departments, library, mineralogical and chemical departments, and found all in fair condition, and we will add that the chemical department is sufficiently large and complete for all chemical and analytical purposes. We saw and conversed with some thirty-seven students. The students looked healthy, and their deportment was refined and gentlemanly.

While your committee will not commit themselves to the establishing of an Agricultural Experiment Station, they will say, with the utmost frankness, that in point of soil (two hundred and eighty-six acres), buildings and chemical laboratory,

it is fully fitted and well adapted for such an enterprise.

Your committee deeply regret that they had so short a time to make their investigations, and for this cause this report must necessarily be shorter and more imperfect than it otherwise would have been.

G. W. GOLDSBOROUGH,  
Chairman Senate Committee.

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#### WHO WANTS AN AGRICULTURAL EXPERIMENT STATION AT PIKESVILLE?

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The parties who are making the effort to break up the Agricultural College in this State, and to establish an Experimental Station at Pikesville, are the same who made the attempt two years ago, and failed. The plot this year, however, is more deeply planned than before. They spread on paper, and publish widely, resolutions said to have been adopted by certain organizations in some three or four counties; but failed to say in any case how many were present when the resolutions were adopted. It is not believed that one hundred votes were given in favor of the resolutions all counted, and perhaps not the half of that number. It is quite important that this method of those who are seeking this particular class Legislation should be understood. The 40,000 farmers of Maryland are completely overshadowed by the machinations of these schemers; but we trust that our Legislature will not be influenced against what is just and honorable by such a transparent movement. Even if these few organizations, under peculiar manipulation, have cast 200 votes recommending this measure, remember 39,800 farmers in Maryland are yet to be heard from; and they ask that you do them justice in this matter, by making their College the peer of those in other states, where an agricultural education is esteemed an untold blessing.

There is no doubt, and it would be very strange if it were not so, that a few good

and respectable farmers, who have not posted themselves thoroughly on this subject, suppose Pikesville to be the most suitable place for the Experiment Station; but when they shall have examined the the subject fully, we believe they will come to a different conclusion.

Pikesville has only about fifteen acres of land, and that all of one variety of soil; the buildings are in a dilapidated condition, and of very little account for this purpose; no equipments in the way of chemical apparatus or library, or kindred conveniences are there; the only means of access is the Western Maryland R. R., with comparatively a limited number of trains.

In contrast with this at the Agricultural College, the state has an interest in 286 acres of land, consisting of nearly every variety of soil to be found in Maryland; it has first class buildings necessary for the Experiment Station; a good Library with books of reference; a fine Chemical Apparatus with equipments for experimental work; numerous trains from Baltimore and Washington make it within easy reach. Considering these things it would seem evident that the College is the only proper place for an agricultural experiment station. The General Government raise no question in this respect, but take for granted that the State Agricultural Colleges are the points alone to be considered. This is seen in the "Hatch Bill" which was unanimously reported to the House a few days since, appropriating \$15,000 annually to each Agricultural College in the United States for experimental purposes. Farmers of this country have expressed themselves that this is the most important bill for the farmers that has been before Congress for many years, and the prospects are that it will become a law.

It is proper, before closing this article, to make known the fact that the College is at present in a good and prosperous condition, lacking only the necessary funds to



improve and cultivate the farm lands; while no institution of this character is more favorably situated to become of eminent use to the agriculturists of the country.

We gave some attention to this subject of an Experiment Station at Pikesville two years ago, when it was before the Legislature, and then set forth the facts that personal interest as to the enhancement of the value of property, and an additional class of officers at good salaries, and other no doubt desirable associations, made the people of that locality anxious for its establishment there; but we were confident that our Legislature could not be prevailed upon to destroy an already important institution to gratify a small section and a few interested parties.

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#### AN EXPERIMENT STATION.

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The MARYLAND FARMER is not the organ of any particular class of farmers. It is the advocate of whatever will benefit the farmers of the State, and of whatever will best promote the welfare of the agricultural interests at large. Nothing is more distasteful to us than to be forced to refer to publications habitually filled with misrepresentations, and we very seldom reply to them. Such publications usually come from disappointed parties; parties who have been displaced from office or position; or, parties who are coveting positions which are filled by others. We all have seen examples of this in the political world where the best men of the country are scandalously vilified, misrepresented, and subjected to the indignity of the vilest epithets. The same spirit has been manifested in connection with the Maryland State Agricultural College.

The MARYLAND FARMER is in favor of an Experimental Station, not for any organization of 2 or 3 dozen farmers, nor for the benefit of any particular locality; but

an Experiment Station for the benefit of the farmers of Maryland, and for the agricultural interests of the State. It is in favor of an Experiment Station not to be governed by a Board of Control made up from private organizations for the benefit of the few; but under a Board of Control that properly represents the State and which will insure its work for the good of the 40,000 farmers of Maryland.

The Bill for an Experiment Station at Pikesville is an outrage upon the intelligence of the farming community. This is plainly shown, even by the more than friendly committee who were sent by the Legislature to examine the locality. Their report showed but 9 acres of land, and no more to be had, at any reasonable price, while the buildings are reported by them in a dilapidated condition. But nine acres of land! For an Experiment Station for the State of Maryland! Nine acres upon which to experiment as to the best methods of raising grain, root crops, vegetables, small fruits, orchards, storing of ensilage, feeding stock, promoting the dairy industry, raising horses, hogs, sheep, caring for the many interests that are most useful to the 40,000 farmers of Maryland! Is it possible that our Legislature contemplates seriously this farce? and can be prevailed upon to throw away at Pikesville \$20,000 this year to no purpose? and \$10,000 annually thereafter. A farm of 50 to 100 acres is needed, and this with a variety of soil and all the appliances of thorough management and cultivation.

It is a fact that in some States, Experimental laboratories have been established for the testing of fertilizers and the analysis of soils; and these would only require a contracted office and a small yard in some city or village; but this is not what the farmers of Maryland mean by an Experi-



mental Station. They want generous manipulation of every department of their work, in addition to this purely chemical one.

It has been said that the enemies of the Union, in the vicinity of Charlestown, long before the first gun was fired, commenced the scraping of lint. We will not vouch for this for we do not know it. But we do know that the enemies of the Agricultural College, long before the meeting of the Legislature, commenced the movement to get a bill through the Legislature at Annapolis which would break up the College, and establish an Experiment Station at Pikesville. We shall be greatly disappointed, if the public do not see clearly the spirit which is at the bottom of this entire movement.

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#### A SEASONABLE SERMONETTE.

BY D. D. T. MOORE.

We have received from Col. Moore the following interesting communication. It is timely and to the point. Our readers will recognize Col. Moore, as formerly and for many years the leading editor of what is now the well known Rural New Yorker. We welcome him to our columns:

"And now hath come the glad vernal season. After weeks and months of severe weather; seed time approacheth, again fulfilling the sacred promise. Now the wise husbandman goeth forth rejoicing and scattereth good seed upon well prepared ground, which will yield many fold when the promised harvest cometh. But the ignorant and slothful cultivator, who soweth foul seed upon barren or unprepared ground, will not receive a reward commensurate to his ill-directed labor and investment. The obvious moral of our proposition is, that the farmer who properly prepares his soil, carefully sows or plants pure seed of good varieties, and gives his crops seasonable and thorough afterculture, will (D.V.) be abundantly rewarded in autumn—while he who neglects timely and incumbent duties will have little or no

occasion to rejoice when the harvest cometh. The duty of the hour is thus made plain to every soil cultivator. And surely the wise and thoughtful readers of the MARYLAND FARMER need no special admonition, or even reminders, as to the necessity of carefulness and thoroughness, as well as promptness, in attending to the important duties of plowing, planting, fertilizing and cultivating—for they know that "whatever is worth doing at all is worth doing well" and in season, and that this adage is most applicable to leading farming operations.

But aside from the planting of crops there are various other labors and duties requiring attention on the farm at this season. Among these fixing up about the dwelling, out-houses and garden is important, while the making of permanent improvements should not be overlooked. As the writer has said aforetime, every owner of a farm, be it small or large—whether only "ten acres enough" or a tract of hundreds—should make such improvements annually as will add to both the attractiveness and value of his premises. Around the farm-house there is usually abundant room for changes which would prove decided improvements. The outlook from the house should be rendered pleasant by its surroundings, including flowers, shrubs, vines, trees, lawns, neat fences and the like. The planting of trees of various kinds, both fruit and ornamental, is one of the best investments a farmer can make at this season, and we urge this as a duty upon all whose premises are not well supplied with these useful and attractive appendages. These things cost but little and return many fold in the pleasure they afford a family and its visitors, while the outlay is far more than repaid in the enhanced value of the homestead. Not only farmers, but suburban and village residents who have sufficient ground, should give this matter of beautifying home special attention every spring, and not neglect it during summer and autumn.

There are other ways in which the appearance and value of farmsteads may be materially improved. Good buildings, fences and the like are prominent factors in enhancing the intrinsic value of a farm, and these will generally first attract the attention of those desirous of purchasing; whereas a place with shabby buildings and

tumble-down fences is usually passed by contemptuously, even though it may possess some decided advantages. A good orchard is another permanent improvement which adds materially to the valuation of one's premises—a matter to be borne in mind at this season by farmers who have neglected the planting of fruiteries. Farms that are well drained also attract the notice of shrewd purchasers and observing strangers, who know that such farms are far more productive than those which are defaced with swamps, water or wet and cold spots that lack fertility and preclude cultivation. Underdraining would pay large and continuous dividends on many farms where it is considered unnecessary, and spring is a good time to plan and inaugurate improvement in that direction.

Procuring good seed of the most approved varieties (alluded to in our opening paragraph) is also a matter of vital importance to farmers and gardeners. Those of our readers who have not already done so, should at once secure the best field and garden seeds obtainable. And the same advice is timely as to plants, trees and shrubs—indeed everything planted should be of superior quality. It pays to “get the best” seeds, trees, etc., regardless of a little expense, for upon the quality and purity of what is planted often depends the profit of the crop produced. And in raising animals it is almost invariably the wisest course to heed the trite but truthful adage which saith “breed from the best.” Even if the service of an improved sire costs a few shillings or dollars extra it will prove an expenditure in the line of true economy. Breeding from a scrub because it would cost a little more to do so from a thoroughbred is the worst policy a farmer can pursue, and should be ignored by all who regard both pleasure and profit in their operations.

Another matter in which “get the best” should be the invariable rule is in providing farm tools and implements. The wide-awake, progressive farmer always looks to this important arm of his service early in the season. During the leisure of winter or early spring he sees that all farm machinery is put in good repair, and painted if necessary, so that there shall be no delay when the time arrives for active operations afield. And in obtaining whatever new tools may be required, he looks

for the latest improvements, and purchases from reliable manufacturers and dealers—such, for example, as advertise in the MARYLAND FARMER and like journals. Knowing the great advantage of having the most approved labor-saving implements, and of keeping them in order for use at a moment's notice, our progressive friend is never subjected to unnecessary delay or expense from lack of timely preparation. On the contrary, having his implements and teams in the best condition, and the men to handle them in readiness, he enters upon the spring campaign promptly and vigorously, and with a system and skill likely to assure successful results at the close of the season.

#### A GEORGIA WILLOW FARM.

About a mile below the city of Macon is the osier willow farm of Mr. I. C. Plant, which has been visited by a correspondent of the *American Druggist*. The willow switches, at the end of two years, are from four to seven feet long, and are cut and gathered into bunches like sheaves of wheat. In the stripping building they are steeped in water, and the bark at the larger end loosened for a couple of inches by machinery. The leaves and bark are then removed by a little machine devised by Mr. Plant. One by one the switches are placed in the mechanical stripper, and with a pair of pliers are pulled through with a sudden jerk. They are then wiped off with a woolen cloth, bundled, and laid away to dry.

All the leaves and bark are dried and baled. They are used for medical purposes, and command a price of twenty-five cents a pound. There are at present 400,000 willows growing on the farm, and 80,000 additional slips have recently been set out. The entire levee is to be eventually covered with them, when sixty acres will be devoted to this single crop. The average yield is a ton to the acre. When dried, the willows command \$200 per ton, and find a ready market.

AWFUL INCENDIARISM.—To set on fire the dwelling of an immortal soul with Alcohol is a great crime. Whoever administers it to the sick is guilty of it. The only medicine in existence which extinguishes disease, by removing all morbid matter from the system, is *Dr. Walker's Vinegar Bitters*, a tonic, yet free from Alcohol.



## PLEASANT VISITORS.

We enjoyed a very pleasant call from the President and Secretary of the American Agricultural Association on their way from New York to Washington, to visit the Agricultural Committee of Congress, and urge the passage of some law which will be effective to suppress the fraudulent substitution of oleomargarine for butter. It is represented that the dairy interests have already been injured to the amount of several millions of dollars in New York state alone, by this substitute for butter. A law, which will deprive it of the possibility of being sold as butter is a necessity, and will accomplish all that the dairymen seek to accomplish.

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Noah Walker & Co.

We can well remember the Clothing House of Noah Walker & Co. more than forty years ago. There are very few families in Baltimore or even in Maryland who have not patronized this clothing house, and we have never heard any one yet complain that he did not get the worth of his money. They seem to keep well up with the times, and we have no doubt that in the future as in the past, they will continue to please all who give them a call. Try them.

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In New Quarters.

Messrs. Lord & Thomas, of Chicago, the well-known and popular Advertising Agents are about to move into new quarters, which are so spacious, so elegant, and so original and novel in their appointments, that they deserve more than a passing notice.

The building, Nos. 42, 47 and 49 Randolph St., between State and Wabash Ave. is at once the most striking in appearance and the most elegant in Chicago; built of sandstone, it is 70 by 174 feet, practically fire proof, and lighted on four sides. Three large elevators and two spacious stairways, give abundant facilities for passengers and freight.

Messrs. Lord & Thomas will occupy the entire third floor, giving them a superficial area of nearly 12,000 square feet. This

beautifully lighted room is unbroken by partitions, save a private office in one corner, thus bringing the entire working force of about sixty clerks in one spacious room.

Space will not permit us to describe this important improvement in detail. The principles upon which it is constructed will be covered by letters patent.

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Washington, D. C.

EZRA WHITMAN, ESQ.

Dear Sir:—Enclosed please find Postal Note to pay my subscription for the MARYLAND FARMER for the year 1886.

No other agricultural journal can fill its place, for this locality.

Yours truly,  
H. P.

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The *Maryland Farmer*.—We have just received this monthly for March. It is full of useful information for the agriculturist, and every one who is interested in the progress of agriculture should have a copy. Published by Ezra Whitman, Baltimore, Md., at \$1 per annum in advance.—*Frederick Examiner*.

The *Maryland Farmer* for March is, as usual, a very interesting and useful periodical. There is much valuable matter which will be appreciated by all agriculturists. The new dress of the publication adds considerably to its appearance, and has, no doubt, been the cause of a gratifying increase in its popularity.—*Baltimore News*.

The old reliable "*Maryland Farmer*," of Baltimore, enters upon its twenty-third volume with an elegant light and airy new cover, the agricultural and farm designs of which are gracefully and finely drawn. It is quite an improvement on the former green and gold cover, and looks as though our venerable friend—twenty years younger than we are—was renewing its youth and beauty for another score of years of prosperity and usefulness.—*Southern Cultivator*.

The March number of the *Maryland Farmer* is before us. It is a beauty, and contains 32 pages of interesting reading matter besides about 48 pages advertisements. It is full of choice selections and should be read by every farmer.—*Person County Courier*, N. C.

## DOMESTIC RECIPES.

**APPLE DOUGHNUTS.**—Peel, core and quarter a dozen apples. Take half a pound of flour, three eggs and water enough to make a thin dough, into which the apples are to be dipped; fry in boiling lard. When a bright yellow drain and sprinkle with sugar and serve hot.

**SPONGE CAKE.**—The weight of four eggs in flour and six in castor sugar. Whisk six eggs to a froth for twenty minutes, then sift in the sugar, beating until well mixed; to this add the flour in the same way, and a teaspoonful of baking powder dissolved in half a wineglassful of warm water flavored with ratafia or lemon. Bake in a tin lined with buttered paper. The oven must be hot, and the cake left to rise for half an hour before being looked at. Cover the cake to prevent browning too quickly. Time for baking about an hour. Try when done with a knitting needle.

**WATERCRESS SANDWICHES.**—Thoroughly dry and free the watercress from all weeds and grit, lay it on a cloth, and put it under heavy weights for half an hour. Cut several rounds of thin bread and butter from a loaf, put some watercress between each slice of bread, like meat, with a sprinkling of pepper and salt or salt only. Cut the slices into sandwiches with a sharp knife on a board.

**COMPOSITE OF CHESTNUTS.**—Roast about thirty chestnuts, take off the peel, and put them into a preserving pan with a quarter of a pound of sugar, pounded, and half a glass of water. Let them remain until they have absorbed the sugar, then take them out and dress them high on a dish; squeeze over them the juice of a lemon and sprinkle them with fine sugar, when they are ready to serve.

The Syracuse Chilled Plow Company of Syracuse, N. Y., manufacture steel, iron and wood beam plows, sulky plows, shovel plows, cultivators, road scrapers, etc. They claim their steel plows are the lightest draft plows in the world, and that their implements have been awarded over 200 first premiums, write them for their circular and almanac for 1886, which gives full particulars. See their advertisement in this number.

## BOOKS, CATALOGUES, etc., RECEIVED.

C. E. Allens, Seed and Plant catalogue, Brattleboro, Vt.

From J. A. Everitt & Co., Watsonstown, Pa. Seed Catalogue.

Report of Experiments with various insecticide substances, upon insects affecting garden crops, by the U. S. Department of Agriculture.

Received of Wm. Parry, Proprietor of the well-known Pomona Nurseries which were established nearly fifty years ago, his catalogue of small fruits.

From the Penna. Board of Agriculture, their 29th and 30th quarterly reports. An excellent work. Every farmer should have a copy. Where is Maryland?

Ogilvie's Popular Reading. No 28 just received, containing eight stories by popular authors, price for the work complete, 30 cents. J. S. Ogilvie & Co., Publishers, New York.

From American Mfg. Co. of Waynesboro, Pa. their new principles of evaporating fruits, containing description of their machine and prices. One of their machines can be seen at our office.

Received from Geo. K. Wright of Columbia, S. C. the South Carolina Real Estate Register, giving a full discription of the State, and is very desirable to those contemplating settling in that section.

From Nash & Bro. of Millington, N. J., a book of nearly 300 pages and containing over 2000 testimonials, speaking in high terms of their "Acme" Pulverizing Harrow, Clod Crusher and Leveler.

An admirably prepared work on the Dog, in Health, Habits, and Diseases with fifty illustrations by "Landseer" price only a quarter of a dollar. It is a work every dog owner should have. Publisher, R. C. Hartranft, Phila., Pa.

From the Spangler Mfg. Co. of York, Pa. a catalogue describing their Corn Planter, and Spangler's Vegetable Seeder, which sows the seeds, distributes the fertilizer, mixes it with the soil, and rolls it, all in one operation. For sale by E. Whitman, Sons & Co.

◆◆◆◆◆  
One of Our Prominent Fertilizer Houses.

Messrs. J. J. Turner & Co., offer goods which they manufacture and guarantee fully up to the standard, such as "Turners Excelsior," also "Turners Bone Super Phosphate", a large supply of Peruvian Guano, &c. See advertisement on page 24 of this number which gives full particulars. Write them for further information.



# **MABLEY & CAREW**

## **CLOTHIERS AND**

## **MERCHANT TAILORS.**

**1886 - Spring and Summer Season - 1886**

**WHENEVER YOU COME TO BALTIMORE**

We cordially invite all readers of the MARYLAND FARMER to visit our MAMMOTH STORE, whether desiring to purchase or only to examine our complete and extensive stock of SPRING AND SUMMER CLOTHING of every grade and style for MEN, BOYS and CHILDREN. Our line of goods is decidedly the largest and best in the State, and prices always LOWER than the LOWEST quotations of other dealers.

### **Fine 'Tailor-Made Body-Fitting Suits.**

Made by our own Tailors, perfectly trimmed and finished. We make a specialty of FARMERS' WORKING SUITS; reliable and durable goods.

**Workingmen's Pants, for rough wear, 60 cts.**

**Special Line of Suitings for Clergymen.**

EXTRA SIZE GARMENTS FOR LARGE MEN who cannot be fitted elsewhere. Unmatched COATS, PANTS, and VESTS, all sizes. BOYS AND CHILDREN'S SHIRT WAISTS from 20 cents up.

Large and Splendid  
Assortment of

### **FURNISHING GOODS**

Retailed at Importers' Prices.

**Shirts, Collars, Cuffs, Underwear, Hosiery,  
Handkerchiefs, Neckwear, &c., &c.**

We invite the especial attention of visitors to our MERCHANT TAILORING DEPARTMENT which is located upon our third floor. It is the largest and most complete Custom department in the city. In our selection of PIECE GOODS we display all recent and most popular patterns in Imported and American Fabrics, and guarantee PROMPTNESS, ACCURACY and MODERATE PRICES.

## **MABLEY & CAREW,**

**S. W. Corner Baltimore and Light Streets,  
BALTIMORE, MD.**

NOTE.—Our Fashion Folder containing rules for self measurement will be sent free to any address upon application.